

DAVID J. MEYER
VICE PRESIDENT AND CHIEF COUNSEL FOR
REGULATORY & GOVERNMENTAL AFFAIRS
AVISTA CORPORATION
P.O. BOX 3727
1411 EAST MISSION AVENUE
SPOKANE, WASHINGTON 99220-3727
TELEPHONE: (509) 495-4316
FACSIMILE: (509) 495-8851
DAVID.MEYER@AVISTACORP.COM

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION) CASE NO. AVU-E-12-08
OF AVISTA CORPORATION FOR THE)
AUTHORITY TO INCREASE ITS RATES)
AND CHARGES FOR ELECTRIC AND)
NATURAL GAS SERVICE TO ELECTRIC) DIRECT TESTIMONY
AND NATURAL GAS CUSTOMERS IN THE) OF
STATE OF IDAHO) SCOTT J. KINNEY
_____)

FOR AVISTA CORPORATION

(ELECTRIC ONLY)

1 I. INTRODUCTION

2 Q. Please state your name, employer and business
3 address.

4 A. My name is Scott J. Kinney. I am employed by
5 Avista Corporation as Director, Transmission Operations.
6 My business address is 1411 East Mission, Spokane,
7 Washington.

8 Q. Please briefly describe your educational
9 background and professional experience.

10 A. I graduated from Gonzaga University in 1991 with
11 a B.S. in Electrical Engineering. I am a licensed
12 Professional Engineer in the State of Washington. I joined
13 the Company in 1999 after spending eight years with the
14 Bonneville Power Administration. I have held several
15 different positions in the Transmission Department. I
16 started at Avista as a Senior Transmission Planning
17 Engineer. In 2002, I moved to the System Operations
18 Department as a supervisor and support engineer. In 2004,
19 I was appointed as the Chief Engineer, System Operations.
20 In June of 2008 I was selected to my current position as
21 Director, Transmission Operations.

22 Q. What is the scope of your testimony?

1 A. My testimony describes Avista's pro forma period
2 transmission revenues and expenses. I also discuss the
3 Transmission and Distribution expenditures that are part of
4 the capital additions testimony provided by Company witness
5 Mr. DeFelice, as well as projects associated with the
6 Company's Asset Management Program. Company witness Ms.
7 Andrews incorporates the Idaho share of the net
8 transmission expenses and investment

9 **Q. Are you sponsoring any Exhibits?**

10 A. Yes. Exhibit 9, Schedule 1 provides the
11 transmission pro forma adjustments.

12

13 A table of contents for my testimony is as follows:

14	<u>Section</u>	<u>Page</u>
15	I. Introduction	1
16	II. Pro Forma Transmission Expenses	2
17	III. Pro Forma Transmission Revenue	13
18	IV. Transmission and Distribution Capital Projects	24
19	V. Vegetation Management Program	55

20

21 **II. PRO FORMA TRANSMISSION EXPENSES**

22 **Q. Please describe the pro forma transmission**
23 **expense revisions included in this filing.**

1 A. Adjustments were made in this filing to
 2 incorporate updated information for any changes in
 3 transmission expenses from the July 2011 to June 2012 test
 4 year to the 2013 pro forma rate period. The changes in
 5 expenses and a description of each is summarized in Table 1
 6 and are system costs with the exception of Grid West, which
 7 is a direct Idaho cost:

Table 1:

Transmission Expense Adjustments	
	*Pro Forma (System)
Northwest Power Pool (NWPP)	\$ 3,000
Colstrip Transmission	\$ (43,000)
ColumbiaGrid RTO	\$ 55,000
ColumbiaGrid Transmission Planning	\$ 17,000
ColumbiaGrid OASIS	\$ 4,000
Elect Sched & Acctg Srv (OATI)	\$ 8,000
NERC CIP	\$ 2,000
OASIS Expenses	\$ 9,000
BPA Power Factor Penalty	\$ (1,000)
WECC Total Dues - WECC Sys Secur & Admin- Net Oper Comm Sys	\$ 67,000
WECC - Loop Flow	\$ (14,000)
CNC Transmission Project	\$ 126,000
Transmission Line Ratings Confirmation Plan (NERC Alert)	\$ (189,000)
Total System Expense	\$ 44,000
Grid West (ID Direct)	\$ (35,000)
Total Expense	\$ 9,000

8 *Representing the change in expense above or below the 2011 test period level.

9

10 Northwest Power Pool (NWPP) (\$3,000) - Avista pays its
 11 share of the NWPP operating costs. The NWPP serves the
 12 electric utilities in the Northwest by supporting regional

1 transmission planning coordination, providing coordinated
2 transmission operations including contingency generation
3 reserve sharing, and Columbia River water coordination.
4 Actual test period transmission related NWPP expenses were
5 \$51,000 and a \$3,000 adjustment is being made to the pro
6 forma period to reflect an approved 6.2% increase in the
7 NWPP expenses allocated to the Company.

8 Colstrip Transmission (-\$43,000) - Avista is required
9 to pay its portion of the O&M costs associated with its
10 share of the Colstrip transmission system pursuant to the
11 joint Colstrip contract. In accordance with NorthWestern
12 Energy's (NWE) proposed Colstrip transmission plan provided
13 to the Company, NWE will bill Avista \$387,000 for Avista's
14 share of the Colstrip O&M expense during the pro forma
15 period. This is a decrease of \$43,000 from the actual
16 expense of \$430,000 incurred during the test year.

17 ColumbiaGrid (\$55,000) - Avista became a member of the
18 ColumbiaGrid regional organization in 2006. ColumbiaGrid's
19 purpose is to enhance transmission system reliability and
20 efficiency, provide cost-effective coordinated regional
21 transmission planning, develop and facilitate the
22 implementation of solutions relating to improved use and
23 expansion of the interconnected Northwest transmission

1 system, reduce transmission system congestion, and support
2 effective market monitoring within the Northwest and the
3 entire Western interconnection. Avista supports
4 ColumbiaGrid's general developmental and regional
5 coordination activities under a general funding agreement
6 and supports specific functional activities under the
7 Planning and Expansion Functional Agreement and the OASIS
8 Functional Agreement. The current general funding
9 agreement for ColumbiaGrid expires December 31, 2012,
10 however a follow-on contract will be developed to replace
11 the expiring contract. Avista's ColumbiaGrid general
12 funding expenses for the test year were \$132,000 while 2013
13 general funding expenses provided by ColumbiaGrid at a
14 Board meeting on August 14, 2012 are forecasted to be
15 \$187,000, an increase of \$55,000.

16 ColumbiaGrid Transmission Planning (\$17,000) - The
17 ColumbiaGrid Planning and Expansion Functional Agreement
18 (PEFA) was accepted by the Federal Energy Regulatory
19 Commission (FERC) on April 3, 2007 and Avista entered into
20 the PEFA on April 4, 2007. Coordinated transmission
21 planning activities under the PEFA allow the Company to
22 meet the coordinated regional transmission planning
23 requirements set forth in FERC's Order 890 issued in

1 February, 2007, and outlined in the Company's Open Access
2 Transmission Tariff, Attachment K. Funding under the PEFA
3 is on a two-year cycle with provisions to adjust for
4 inflation. Actual PEFA expenses for the test year were
5 \$209,000. The Company's PEFA pro forma expenses are at the
6 maximum total payment obligation of \$226,000 as provided at
7 the Board meeting on August 14, 2012. This cost reflects
8 ColumbiaGrid's staffing levels to support the PEFA and the
9 reallocation of a portion of ColumbiaGrid's administrative
10 expenses (previously paid under the general funding
11 agreement) to this functional agreement.

12 ColumbiaGrid Open Access Same-Time Information System
13 (OASIS) (\$4,000) - Avista entered into the ColumbiaGrid
14 OASIS Functional Agreement in February 2008. This
15 agreement provides for the development of a common OASIS
16 which gives transmission customers the ability to purchase
17 transmission capacity from multiple ColumbiaGrid members
18 via a single common OASIS site instead of having to submit
19 multiple transmission service requests to each member
20 individually on each member's respective OASIS sites.
21 Avista's test year expenses of \$30,000 reflected initial
22 developmental activities under this functional agreement.
23 Avista's ColumbiaGrid OASIS pro forma expenses are \$34,000,

1 reflecting operational capability of the ColumbiaGrid OASIS
2 and the reallocation of a portion of ColumbiaGrid's
3 administrative expenses (previously paid under the general
4 funding agreement) to this functional agreement.

5 Electric Scheduling and Accounting Services (\$8,000) -
6 The \$8,000 increase in the pro forma period compared to
7 test year expense for electric scheduling and accounting
8 services is a result of annual increases and additional
9 services purchased from our third party vendor. These
10 services are required to assist in meeting the requirements
11 of North American Electric Reliability Corporation (NERC)
12 mandatory reliability standards. The pro forma scheduling
13 and accounting costs are \$179,000 compared to test year
14 costs of \$171,000.

15 NERC Critical Infrastructure Protection (\$2,000) - The
16 Company has purchased several software products to assist
17 in protecting critical transmission system data from
18 intrusion and to meet applicable NERC standards. The
19 Company's pro forma expenses increase \$2,000 from the
20 actual test year expense of \$31,000 due to annual
21 application maintenance cost increases.

22 OASIS Expenses (\$9,000) - These OASIS expenses are
23 associated with travel and training costs for transmission

1 pre-scheduling and OASIS personnel. This travel is
2 required to monitor and adhere to NERC reliability
3 standards, regional criterion development, and FERC OASIS
4 requirements. The costs associated with OASIS expenses in
5 the pro forma period are \$9,000 compared to \$450 of actual
6 expenses in the test year. In the test year employees
7 associated with the OASIS function did not travel much nor
8 attend training due to increased workload associated with
9 several new projects and requirements.

10 Power Factor Penalty (-\$1,000) - Power factor penalty
11 costs are associated with the Bonneville Power
12 Administration's (Bonneville) General Transmission Rate
13 Schedule Provisions. Bonneville charges a power factor
14 penalty at all interconnections with Avista that exceed a
15 given threshold for reactive power flow during each month.
16 If the reactive flow from Bonneville's transmission system
17 into Avista's system or from Avista's system to
18 Bonneville's system exceeds a given threshold, then
19 Bonneville bills Avista according to its rate schedule.
20 The charge includes a 12-month rolling ratchet provision.
21 Avista currently pays Bonneville a power factor penalty at
22 several points of interconnection. Avista incurred
23 \$203,000 of power factory penalty charges during the test

1 year. The Company's pro forma 2013 expenses are expected
2 to be \$202,000 representing a continuation of the current
3 12 month ratchet set in June of 2012.

4 WECC - System Security Monitor and WECC Administration
5 & Net Operating Committee Fees (\$67,000) - The WECC Board
6 of Directors approved a 12.5% increase in dues for 2013 at
7 their Board meeting in June of 2012. The increase is
8 primarily associated with labor and software additions to
9 support additional reliability and compliance requirements
10 for the WECC Reliability Coordinator function. WECC is
11 also responsible for monitoring and measuring Avista's
12 compliance with the standards and, therefore, continues to
13 increase its staff and other resources to meet this FERC
14 requirement. The Company paid its 2012 WECC assessments in
15 January 2012: \$205,000 for system security monitoring and
16 \$328,000 for operating and support fees, for a total WECC
17 assessment of \$533,000. The Company's total pro forma 2013
18 expenses have been increased by 12.5% to \$600,000 (\$231,000
19 for system security and \$369,000 for operating and support)
20 to reflect the WECC Board approved funding levels.

21 WECC - Loop Flow (-\$14,000) - Loop Flow charges are
22 spread across all transmission owners in the West to
23 compensate utilities that make system adjustments to

1 eliminate transmission system congestion throughout the
2 operating year. WECC Loop Flow charges can vary from year
3 to year since the costs incurred are dependent on
4 transmission system usage and congestion. Therefore a
5 five-year average is used to determine future Loop Flow
6 costs. Based upon the average WECC Loop Flow charges
7 incurred by the Company during the five-year period from
8 2008 through 2012, pro forma Loop Flow expenses are
9 \$31,000. This is \$14,000 less than actual test year
10 charges of \$45,000, which included payments for the 2011
11 and 2012 operating years.

12 Canada to Northern California (CNC) Transmission
13 Project (\$126,000) - The CNC transmission project was
14 initially proposed by Pacific Gas and Electric Company
15 ("PG&E"). As initially proposed, the CNC transmission
16 project was an Extra High Voltage ("EHV") transmission
17 project that, if developed, would include a 500kV
18 transmission line that would run between British Columbia,
19 Canada and Northern California. With PG&E as the primary
20 sponsor, Avista, British Columbia Transmission Corporation,
21 PacifiCorp and Transmission Agency of Northern California
22 were also original sponsors of the CNC transmission
23 project. The cost accrued by Avista for its participation

1 in the CNC regional transmission project was \$758,000. Of
2 this amount, \$537,000 is the amount Avista paid for its
3 share of the initial sponsorship of the CNC transmission
4 project pursuant to the Stage One Project Development
5 Agreement, and \$221,000 consisted of the direct
6 transmission planning expenses incurred by Avista. Avista
7 is amortizing these expenses over a three-year period
8 beginning in 2012, resulting in an amortized expense of
9 \$253,000 (\$88,000 Idaho share) in the pro forma period. A
10 total of \$127,000 (6 months) was amortized in the test
11 year¹.

12 Transmission Line Ratings Confirmation Plan (NERC
13 Alert) (\$-189,000) - The Transmission Line Ratings
14 Confirmation Plan was developed to address a "NERC Alert"
15 issued on October 7, 2010. The NERC issued a
16 "Recommendation to Industry addressing Consideration of
17 Actual Field Conditions in Determination of Facility
18 Ratings" based on a vegetation contact conductor-to-ground
19 fault by another Transmission Owner. The NERC Alert was
20 issued to provide the industry an opportunity to review
21 actual field conditions and compare them to design values

¹ The amortization of the Canada to Northern California (CNC) Transmission Line was proposed in the Company's last general rate case (AVU-E-11-01) that was resolved through a "black-box" settlement. The amortization period represents the method proposed in AVU-E-11-01.

1 to ensure system reliability. Avista initiated a three
2 year program beginning in 2011 to perform Light Detection
3 and Ranging (LIDAR) surveying of all Avista 230kV
4 transmission lines and five (5) 115kV transmission lines.
5 A total of 1400 miles of transmission lines were to be
6 evaluated at a projected total system cost of \$2.945
7 million. The total project cost for this effort has been
8 reduced to \$2.260 million based on a reduction of miles
9 required to evaluate. The remaining pro forma costs for
10 this project are \$0.323 million. The test year expenses
11 associated with this project was \$0.512 million.

12 Grid West (ID Direct) (-\$35,000) - Avista signed an
13 initial funding agreement in 2000, as did all other Pacific
14 Northwest investor-owned electric utilities, to provide
15 funding for the start-up phase of Grid West (then named
16 "RTO West"). Grid West had planned to repay the loans to
17 Avista and other funding utilities through surcharges to
18 customers once it became operational. With the dissolution
19 of Grid West, this repayment did not occur. As a result,
20 Avista filed an application with the Commission to defer
21 these costs. The Commission approved, on October 24, 2006,
22 in Order No. 30151, the Company's request for an order
23 authorizing deferred accounting treatment for loan amounts

1 made to Grid West. In its Order the IPUC found these costs
2 to be "prudent and in the public interest" and required the
3 Company to begin amortization of the Idaho share of the
4 loan principal (\$422,000) beginning January 2007, for five
5 years. With the completion of the amortization in December
6 2011 the Company will not incur costs associated with Grid
7 West in the pro forma period. Avista did amortize a total
8 of \$35,000 in the test year.

9

10 **III. PRO FORMA TRANSMISSION REVENUES**

11 **Q. Please describe the pro forma transmission**
12 **revenue revisions included in this filing.**

13 A. Adjustments have been made in this filing to
14 incorporate updated information associated with known
15 changes in transmission revenue for the 2013 pro forma
16 period as compared to the 2011/12 test year. Each revenue
17 item described below is at a system level and is included
18 in Schedule 1 of Exhibit No. 9. Please see Table 2 and
19 descriptions below for further detail on the revenue pro
20 forma amounts.

Table 2:

Transmission Revenue Adjustments	
	*Pro Forma (System)
Borderline Wheeling Transmission & Low Voltage	\$ 40,000
Seattle/Tacoma Main Canal	\$ (7,000)
Seattle/Tacoma Summer Falls	\$ 0
OASIS, non-firm, & short-term firm (Other Wheeling)	\$ (2,764,000)
Pacificorp- Dry Gulch	\$ (4,000)
Spokane Waste to Energy Plant	\$ (66,000)
Grand Coulee Project	\$ 0
Palouse Wind	\$ 0
Palouse Wind O&M	\$ 70,000
Stimson Lumber	\$ 3,000
Hydro Tech Systems - Meyers Falls	\$ 3,000
BPA Parallel Operating Agreement Settlement	\$ 3,192,000
Morgan Stanley Transmission Service	\$ 600,000
Total Expense	\$ 1,067,000

1 *Representing the change in revenue above or below the 2011 test period level.

2

3 Borderline Wheeling Transmission and Low Voltage

4 (\$40,000)

5 Total borderline wheeling revenues including
6 Transmission (\$7,169,000) and Low Voltage (\$1,071,000) for
7 the test year were \$8,240,000. Total borderline wheeling
8 revenue in the pro forma period has been set at \$8,280,000
9 (Transmission, \$7,209,000 and Low Voltage, \$1,071,000),
10 which reflects a slight increase over the test year. In
11 the past the pro forma borderline revenue has been
12 developed using a five-year rolling average of revenues
13 from borderline wheeling service provided to Bonneville and
14 other customers since a large portion of the revenue is
15 dependent upon usage. However, with billing adjustments
16 implemented in 2009 and the new transmission rates that
17 went into effect in 2010, use of the previous five-years of
18 actual revenues would not properly reflect the new level of

1 revenues. Therefore, pro forma transmission revenue has
2 been set equal to the average of actual revenue from 2010,
3 2011 and 2012 through June, or set per the actual charges
4 in each specific contract. Each of the specific borderline
5 contracts is further described below.

- 6 • Borderline Wheeling - Bonneville Power
7 Administration - (\$37,000) Actual test year revenue
8 from borderline wheeling service provided to
9 Bonneville was \$7,994,000. The Bonneville
10 borderline wheeling contracts are divided into
11 transmission and low voltage service. These were
12 accounted for separately beginning in October of
13 2010 as a result of the new transmission rates. The
14 new transmission rates apply to transmission
15 service, but not to low voltage service. The pro
16 forma Bonneville borderline wheeling revenue is
17 \$8,031,000, which is the average of actual revenues
18 from 2010, 2011, and 2012 through June.
- 19 • Borderline Wheeling - Grant County PUD - (\$0) The
20 Company provides borderline wheeling service to two
21 Grant County PUD substations under a Power Transfer
22 Agreement executed in 1980. Charges under this
23 agreement are not impacted by the Company's
24 transmission service rates under Avista's Open
25 Access Transmission Tariff so a five-year average is
26 used to determine the pro forma revenue of \$26,000,
27 which was the same as the test year.
- 28 • Borderline Wheeling - East Greenacres Irrigation
29 District - (\$0) The Company restructured its
30 contract to provide borderline wheeling service to

1 the East Greenacres Irrigation District in April,
2 2009, resulting in monthly wheeling revenue of
3 \$5,000. Revenue under this agreement for the test
4 year was \$60,000. Revenue for the 2013 pro forma
5 period will remain the same at \$60,000.

- 6 • Borderline Wheeling - Spokane Tribe of Indians -
7 (\$2,000) The Company provides borderline wheeling
8 service over both transmission and low-voltage
9 facilities to the Spokane Tribe of Indians. Total
10 transmission and low-voltage wheeling revenue under
11 this contract for the test year was \$41,000.
12 Revenue associated with the transmission component
13 of this contract is adjusted annually per the
14 contract. Accordingly, 2013 pro forma period
15 revenue under this contract is set at \$43,000.

- 16 • Borderline Wheeling - Consolidated Irrigation
17 District - (\$1,000) The Company provides borderline
18 wheeling service over both transmission and low-
19 voltage facilities to the Consolidated Irrigation
20 District. Total transmission and low-voltage
21 wheeling revenue under this contract for the 2011
22 test year was \$118,000. A new contract signed with
23 the Consolidated Irrigation District in October of
24 2011 resulted in a shift of charges between
25 transmission and low-voltage services. Per the new
26 contract, the total Consolidated Irrigation District
27 revenue for the pro forma period is \$119,000.

28
29 Seattle and Tacoma Revenues Associated with the Main
30 Canal Project (-\$7,000) - Effective March 1, 2008, the

1 Company entered into long-term point-to-point transmission
2 service arrangements with the City of Seattle and the City
3 of Tacoma to transfer output from the Main Canal
4 hydroelectric project, net of local Grant County PUD load
5 service, to the Company's transmission interconnections
6 with Grant County PUD. Service is provided during the
7 eight months of the year (March through October) in which
8 the Main Canal project operates and the agreements include
9 a three-year ratchet demand provision. Revenues under
10 these agreements totaled \$288,000 during the test year.
11 Pro forma revenues are expected to be \$281,000 based on a
12 reduction in the ratchet demand.

13 Seattle and Tacoma Revenues Associated with the Summer
14 Falls Project (\$0) - Effective March 1, 2008, the Company
15 entered into long-term use-of-facilities arrangements with
16 the City of Seattle and the City of Tacoma to transfer
17 output from the Summer Falls hydroelectric project across
18 the Company's Stratford Switching Station facilities to the
19 Company's Stratford interconnection with Grant County PUD.
20 Charges under this use-of-facilities arrangement are based
21 upon the Company's investment in its Stratford Switching
22 Station and are not impacted by the Company's transmission
23 service rates under its Open Access Transmission Tariff.

1 Revenues under these two contracts totaled \$74,000 in the
2 test year and will remain the same for the 2013 pro forma
3 period.

4 OASIS Non-Firm and Short-Term Firm Transmission
5 Service (-\$2,764,000) - OASIS is an acronym for Open Access
6 Same-time Information System. This is the system used by
7 electric transmission providers for selling and scheduling
8 available transmission capacity to eligible customers. The
9 terms and conditions under which the Company sells its
10 transmission capacity via its OASIS are pursuant to FERC
11 regulations and Avista's FERC Open Access Transmission
12 Tariff. The Company is calculating its pro forma
13 adjustments using a three-year average of actual OASIS Non-
14 Firm and Short-Term Firm revenue. OASIS transmission
15 revenue may vary significantly depending upon a number of
16 factors, including current wholesale power market
17 conditions, forced or planned generation resource outage
18 situations in the region, current load-resource balance
19 status of regional load-serving entities and the
20 availability of parallel transmission paths for prospective
21 transmission customers. The use of a three-year average is
22 intended to strike a balance in mitigating both long-term
23 and short-term impacts to OASIS revenue. A three-year

1 period is intended to be long enough to mitigate the
2 impacts of non-substantial temporary operational conditions
3 (for generation and transmission) that may occur during a
4 given year and it is intended to be short-enough so as to
5 not dilute the impacts of long-term transmission and
6 generation topography changes (e.g. major transmission
7 projects which may impact the availability of the Company's
8 transmission capacity or competing transmission paths, and
9 major generation projects which may impact the load-
10 resource balance needs of prospective transmission
11 customers). However, if there are known events or factors
12 that occurred during the period that would cause the
13 average to not be representative of future expectations,
14 then adjustments may be made to the three-year average
15 methodology. In this filing, the Company is using the most
16 recent three-year average with an adjustment to 2011
17 revenues due to additional revenue received from Puget
18 Sound Energy (PSE) as a result of a planned construction
19 outage on BPA's transmission system. The outage resulted
20 in additional one time revenue of \$1.6 million. The
21 adjusted OASIS revenue for 2011 is \$3.101 million. Using
22 this adjusted revenue results in pro forma revenue of
23 \$2.946 million based on a three-year average from 2009

1 through 2011. The test year OASIS revenue was \$5.710
2 million and includes the \$1.6 million one-time collection
3 from PSE resulting from the BPA construction outage.

4 PacifiCorp Dry Gulch (-\$4,000) - Revenue under the Dry
5 Gulch use-of-facilities agreement has been adjusted to
6 \$217,000 for the pro forma period, which is a \$4,000
7 decrease from the test year actual revenue of \$221,000.
8 The Company is calculating its pro forma adjustments using
9 a three-year average of actual revenue. Revenue under the
10 Dry Gulch Transmission and Interconnection Agreement with
11 PacifiCorp varies depending upon PacifiCorp's loads served
12 via the Dry Gulch Interconnection and the operating
13 conditions of PacifiCorp's transmission system in this
14 area. The use of a three-year average is intended to
15 mitigate the impacts of potential annual variability in the
16 revenues under the contract. A three-year average is also
17 consistent with the methodology used for the Company's
18 OASIS revenue. The contract includes a twelve-month
19 rolling ratchet demand provision and charges under this
20 agreement are not impacted by the Company's open access
21 transmission service tariff rates. The three-year average
22 of revenue was calculated using years 2009 through 2011.

1 Spokane Waste-to-Energy Plant (-\$66,000) - This
2 revenue has historically been associated with a long-term
3 transmission service agreement with the City of Spokane
4 that expired December 31, 2011. Upon the City of Spokane's
5 decision to sell the output of the Spokane Waste to Energy
6 facility to Avista beginning January 1, 2012, the City of
7 Spokane no longer required transmission service to deliver
8 the output to a third-party purchaser. Under this new
9 arrangement, the City of Spokane compensates Avista for the
10 use of certain transmission facilities directly related to
11 the interconnection of the Spokane Waste to Energy project.
12 The pro forma revenue associated with this use of facility
13 charge is \$28,000. The test year revenue, including six
14 month's revenue from the expired transmission service
15 contract, was \$94,000.

16 Grand Coulee Project Hydroelectric Authority (\$0) -
17 The Company provides operations and maintenance services on
18 the Stratford - Summer Falls 115kV Transmission Line to the
19 Grand Coulee Project Hydroelectric authority under a
20 contract signed in March 2006. These services are provided
21 for a fixed annual fee. Annual charges under this contract
22 totaled \$8,100 in the test year and will remain the same
23 for the 2013 pro forma period.

1 Palouse Wind (\$0) - Palouse Wind signed a transmission
2 service contract with the Company based on its initial
3 intent to sell the output from a wind facility to an entity
4 other than Avista, commencing January, 2012. Palouse Wind
5 subsequently executed a power sales contract with Avista,
6 rendering its signed transmission service contract
7 unnecessary at this point in time. Under the terms of
8 Avista's Open Access Transmission Tariff, Palouse Wind
9 intends to delay use of its 100 MW of reserved transmission
10 service for up to five years unless they are able to re-
11 market the capacity. Accordingly, to obtain this deferral
12 Palouse Wind must pay one month's transmission service
13 reservation fee. Test year revenue associated with this
14 deferred transmission service was \$200,000 and the revenue
15 for the 2013 pro forma period is expected to remain the
16 same.

17 Palouse Wind O&M (\$70,000) - Separate from any
18 transmission service, Palouse Wind signed an
19 interconnection agreement with the Company to integrate its
20 wind project into the Avista system. Avista constructed a
21 new 230kV switching station (Thornton) to integrate the
22 output from the wind facility. A portion of the cost of the
23 station was directly assigned to Palouse Wind. The

1 interconnection agreement includes annual maintenance
2 charges for equipment upkeep associated with those
3 facilities directly assigned to Palouse Wind. Operating
4 and Maintenance (O&M) charges under the interconnection
5 agreement have not been finalized but preliminary
6 calculations estimate the annual O&M charge to be about
7 3.5% of the overall asset costs. Based on this calculation
8 Palouse Wind will pay the Company approximately \$70,000 per
9 year starting in 2013 for maintenance associated with
10 directly assigned facilities at Thornton. The Thornton
11 switching station was energized in August, 2012 so no O&M
12 revenue was collected in the test year.

13 Stimson Lumber Agreement (\$3,000) - The Company has
14 identified a revenue stream associated with sole-use, or
15 directly assigned, low-voltage facilities related to the
16 integration of small generation resources. The Company
17 will receive annual use-of-facilities revenue of \$9,000, or
18 approximately \$790 per month, from Stimson Lumber for the
19 dedicated use of low-voltage facilities in the Company's
20 Plummer Substation. The test year revenue was \$6,000.

21 Hydro Tech Systems Agreement (\$3,000) - Low-voltage
22 facilities in the Company's Greenwood Substation are
23 dedicated for use by the Meyers Falls generation project

1 resulting in annual use-of-facilities revenue of \$6,000, or
2 \$510 per month. The pro forma revenue from this agreement
3 is \$6,000 while there was \$3,000 in revenue collected
4 during the test year.

5 BPA Parallel Operation Agreement (\$3,192,000) - The
6 Company is negotiating a Parallel Operation Agreement with
7 the Bonneville Power Administration regarding Bonneville's
8 use of the Avista transmission system to support the
9 integration of wind in southeastern Washington. Avista and
10 Bonneville have reached tentative agreement on an ongoing
11 settlement approach where Avista may provide Bonneville
12 with up to 133 MW of parallel capacity support in return
13 for a revenue stream roughly commensurate with Bonneville's
14 cost to upgrade its own system to provide such capacity.
15 The expected pro forma revenue associated with this
16 agreement is \$3,192,000. No such revenue was collected
17 during the test year.

18 Morgan Stanley Transmission Service (\$600,000) -
19 Morgan Stanley Capital Group signed a five-year
20 transmission service agreement with the Company for 25 MW
21 of long-term firm transmission capacity. The agreement
22 starts January 1, 2013, and will result in annual revenues

1 of \$600,000. No revenue was collected from this
2 transmission agreement during the test year.

3

4 **IV. TRANSMISSION AND DISTRIBUTION CAPITAL PROJECTS**

5 **Q. Please describe the Company's capital**
6 **transmission projects that will be completed in 2012?**

7 A. Avista continuously needs to invest in its
8 transmission system to maintain reliable customer service
9 and meet mandatory reliability standards. The 2012 and
10 2013 capital transmission projects are being planned and
11 constructed to meet either compliance requirements, improve
12 system reliability, fix broken equipment, or replace aging
13 equipment that is anticipated to fail.

14 Included in the compliance requirements are the North
15 American Electric Reliability Corporation (NERC) standards,
16 which are national standards that utilities must meet to
17 ensure interconnected system reliability. Beginning June
18 2007, compliance with these standards was made mandatory
19 and failure to meet the requirements could result in
20 monetary penalties of up to \$1 million per day per
21 infraction. The majority of the reliability standards
22 pertain to transmission planning, operation, and equipment
23 maintenance. The standards require utilities to plan and

1 operate their transmission systems in such a way as to
2 avoid the loss of customers or impact to neighboring
3 utility systems due to the loss of transmission facilities.
4 The transmission system must be designed so that the loss
5 of up to two facilities simultaneously will not impact the
6 interconnected transmission system. These requirements
7 drive the need for Avista to continually invest in its
8 transmission system. Avista is required to perform system
9 planning studies in both the near term (1-5 years) and long
10 term (5-10 years). If a potential violation is observed in
11 the future years, then Avista must develop a project plan
12 to ensure that the violation is fixed prior to it becoming
13 a real-time operating issue. Avista develops future
14 project plans to ensure that the design and construction of
15 the required projects are completed prior to the time they
16 are actually needed. Avista will continue to have a need
17 to develop these compliance-related projects as system load
18 grows, new generation is interconnected, and the system
19 functionality and usage changes.

20 Avista capital transmission project requirements are
21 developed through system planning studies, engineering
22 analysis, or scheduled upgrades or replacements. The
23 larger specific projects that are developed through the

1 system planning study process typically go through a
2 thorough internal review process that includes multiple
3 stakeholder review to ensure all system needs are
4 adequately addressed. For the smaller specific projects,
5 Avista doesn't perform a traditional cost-benefit analysis.
6 Projects are selected to meet specific system needs or
7 equipment replacement. However, both project cost and
8 system benefits are considered in the selection of final
9 projects.

10 **Q. Did the Company consider any efficiency gains or**
11 **offsets when evaluating the transmission projects to**
12 **include in the Company's case?**

13 A. Yes. The Company evaluated each project and
14 determined that some of the 2012 and 2013 capital
15 transmission projects will result in efficiency gains and
16 potential offsets or savings, and the Company has included
17 those where applicable. The primary offsets result in loss
18 savings from reconditioning heavily-loaded transmission or
19 distribution facilities. For these projects, an analysis
20 was performed to determine the savings. The assumed
21 avoided energy cost to determine the savings was \$31.50
22 MWh, which is the average purchase and sale price
23 appropriate for the rate period calculation of offsets.

1 However, not all projects will result in loss savings or
2 other offsets. Avista has maintenance schedules for
3 certain equipment. These maintenance cycles range from 5-
4 15 years depending on the equipment. Unless the
5 replacement of equipment occurs in the same year as the
6 scheduled maintenance, there will not be any savings.

7 Although one might think that the replacement of
8 equipment may reduce the failure rate of equipment and
9 reduce after-hours labor costs, newly-installed equipment
10 can get out of alignment, or require other adjustments.
11 Significant system failures also occur during large
12 weather-related events caused by wind, lightning, and snow.
13 Furthermore, each year as we replace old equipment with
14 new, the remainder of our system gets another year older,
15 which continues to generate a similar level of failures on
16 our system. At the current funding levels, the Company's
17 Asset Management program is designed to keep failure rates
18 at current levels.

19 **Q. Please describe each of the transmission projects**
20 **planned for in 2012.**

21 A. The major capital transmission costs (system) for
22 projects to be completed in 2012 are \$28.160 million and
23 are shown in Table 3 and described below.

TABLE 3		
Transmission		
2012 Capital - Compliance, Contractual, and Replacement Projects		
	Pro Forma (System)	O&M Offsets (System)
Reliability Compliance		
Spokane/CDA Relay Upgrade	\$900,000	
SCADA Replacement	\$1,310,000	
System Replace/Install Capacitor Bank	\$2,000,000	
Bronx-Cabinet 115 kV Rebuild/Reconductor	\$2,500,000	\$3,203
Power Transformers - Transmission	\$952,000	
Total Reliability Compliance	\$7,662,000	\$3,203
Contractual Requirements		
Thornton 230 kV Switching Station	\$4,350,000	
Colstrip Transmission	\$410,000	
Tribal Permits	\$325,000	
Total Contractual Requirements	\$5,085,000	\$0
Reliability Improvements		
Moscow City-N Lewiston 115 kV Reconductor	\$2,500,000	
Burke-Thompson A&B 115 kV Reconductor	\$2,500,000	
Millwood 115 kV Substation Rebuild	\$2,000,000	
Noxon-Hot Springs 230 kV Line Re-Route	\$500,000	
Total Reliability Improvements	\$7,500,000	\$0
Reliability Replacement		
Transmission Minor Rebuilds	\$2,370,000	
Power Circuit Breakers	\$1,200,000	
Hatwai 230 kV Breaker Replacement	\$614,000	
Asset Management Replacement	\$3,479,000	
Other Small Projects	\$250,000	
Total Reliability Replacement	\$7,913,000	\$0
Total Transmission Projects	\$28,160,000	\$3,203

1
2
3
4
5
6
7
8
9

Reliability Compliance Projects (\$7.662 million):

- **Spokane/Coeur d'Alene area relay upgrade (\$0.900 million):** This project involves the replacement of older protective 115 kV system relays with new micro-processor relays to increase system reliability by

1 reducing the amount of time it takes to sense a system
2 disturbance and isolate it from the system. This is a
3 five to seven year project and is required to maintain
4 compliance with mandatory reliability standards. This
5 project is required to meet Reliability Compliance
6 under NERC Standards: TOP-004-2 R1-R4, TPL-002-0a R1-
7 R3, TPL-003-0a R1-R3. Positive offsets in reduced
8 maintenance costs associated with this replacement
9 effort are negatively offset by increased NERC testing
10 requirements per standard PRC-005-1.
11

12 • **SCADA Replacement (\$1.310 million):** The System Control
13 and Data Acquisition (SCADA) system is used by the
14 system operators to monitor and control the Avista
15 transmission system. An upgrade to the SCADA system
16 to a new version provided by our SCADA vendor was
17 completed in the first quarter of 2012. The previous
18 application version was no longer supported by the
19 vendor. The upgrade ensures Avista has adequate
20 control and monitoring of its Transmission facilities.
21 This portion of the project is required to meet
22 Reliability Compliance under NERC Standards: TOP-001-
23 1, TOP-002-2a R5-R10, R16, TOP-005-2 R2, TOP-006-2 R1-
24 R7. Several Remote Terminal Units (RTUs) located at
25 substations throughout Avista's service territory will
26 also be replaced due to age. The RTUs are part of the
27 transmission control system. There are no offsets or
28 savings associated with this upgrade project because
29 the Company already pays the application vendor a set
30 annual maintenance fee for support.
31

32 • **System Replace/Install Capacitor Bank (\$2.00 million):**
33 This effort includes two projects. The first project
34 is the replacement of the 115 kV capacitor bank at the
35 Pine Creek 115 kV substations to support local area
36 voltages during system outages. The second project is
37 the addition of new shunt capacitors at Lind 115 kV
38 substation to support system voltages during summer
39 irrigation load conditions and system outages. These
40 projects are required to meet reliability compliance
41 with NERC Standards: TOP-004-2 R1-R4, TPL-002-0a R1-
42 R3, TPL-003-0a R1-R3, and provide improved service to
43 customers. The Lind project is scheduled to be
44 completed in September of 2012 and the Pine Creek
45 project is scheduled to be completed in the late fall
46 of 2012. There are no loss savings or other offsets

1 associated with these projects. The projects improve
2 voltage support but don't reduce loss savings.
3

4 • **Bronx - Cabinet 115 kV rebuild/reconductor (\$2.500**

5 **million):** In 2010 Avista's System Operations
6 identified a thermal constraint on the 32-mile Bronx-
7 Cabinet 115kV Transmission Line. This constraint was
8 confirmed by the System Planning Group, and documented
9 in the Transmission Line Design (TLD) Design Scoping
10 Document (DSD) created on January 4, 2011, and
11 modified on January 7, 2011. The
12 reconductoring/rebuilding of this line with 795 kcmil
13 ACSS conductor will provide a present-day 143 MVA line
14 rating to match the Cabinet Switchyard Transformer,
15 and a future 200 MVA line rating to match the parallel
16 path Bonneville Power Authority (BPA) system. The 32
17 miles of line will be reconducted over a four year
18 period, which began in 2011. Phase 2 of the project
19 (addressed here) consists of the approximately 10-mile
20 stretch between Hope, ID and Clarkfork Sub. The line
21 upgrade will ensure compliance with requirements
22 associated with NERC Standards: TOP-004-2 R1-R4, TPL-
23 002-0a R1-R3, TPL-003-0a R1-R3. Using 2010 actual
24 loads, since the line was operated open in over half
25 of 2011 for the first phase of the project, the new
26 conductor will reduce line losses by 1220 MWh on an
27 annual basis. This project will not be completed
28 until December so offset savings of \$38,430 will be
29 observed in 2012 (based on a \$31.50/MWh avoided energy
30 cost).
31

32 • **Power Transformers - Transmission (\$0.952 million):**

33 The Moscow 230kV substation is currently being
34 rebuilt. Construction started in 2011 and will
35 continue through 2013. The rebuild includes the
36 addition of a new 250 MVA 230/115 kV autotransformer.
37 This autotransformer arrived on-site in late 2011 and
38 was capitalized upon delivery per the company's
39 accounting practices. The transformer was paid for in
40 several installments. This \$952,000 was the final
41 installment (paid in 2012), which was paid after
42 receiving warranty approval from the manufacturer to
43 energize the autotransformer. This project is
44 required to meet Reliability Compliance under NERC
45 Planning and Operations Standards: TOP-004-2 R1-R4,
46 TPL-002-0a R1-R3, TPL-003-0a R1-R3. Offsets for this

1 project will not occur until the Moscow 230 kV
2 Substation is complete in 2013, and therefore have
3 been included in the 2013 project described later in
4 my testimony.

5
6 Contractual Requirements (\$5.085 million):
7

8 • **Thornton 230 kV switching Station (\$4.350 million):**

9 The Thornton 230kV Substation Project interconnects a
10 Third Party Wind Farm Generation Project owned and
11 operated by Palouse Wind to Avista's Benewah - Shawnee
12 230kV Transmission Line. The project includes the
13 construction of the switching station and associated
14 line work to connect the new station to Avista's
15 existing 230 kV line. Palouse Wind will construct and
16 pay for facilities to connect its Generation
17 Collection Station to Thornton. Thornton is required
18 to maintain Avista's 230 kV transmission service with
19 or without the wind generation, so Avista's customers
20 are not affected by any outages as a result of the
21 interconnection. One third of the substation costs
22 (not included here) will be paid for upfront by
23 Palouse Wind as direct assigned facilities according
24 to FERC Open Access Transmission Tariff requirements.
25 There are no offsets with the construction of the new
26 substation.
27

28 • **Colstrip Transmission (\$0.410 million):** As a joint
29 owner of the Colstrip Transmission projects, Avista
30 pays its ownership share of all capital improvements.
31 Northwestern Energy either performs or contracts out
32 the capital work associated with the joint owned
33 facilities.
34

35 • **Tribal Permits (\$0.325 million):** The Company has
36 approximately 300 right-of-way permits on tribal
37 reservations that need to be renewed. The costs
38 include labor, appraisals, field work, legal review,
39 GIS information, negotiations, survey (as needed), and
40 the actual fee for the permit.
41

42 Reliability Improvements (\$7.500 million):
43

44 • **Moscow City-North Lewiston 115 kV Transmission Rebuild**
45 **(\$2.500 million):** This project includes the

1 reconductor/rebuild of the 22-mile line between Moscow
2 City substation and North Lewiston due to the poor
3 condition of the existing line. The project will be
4 completed in three phases. The first phase in 2012
5 includes reconductoring the first seven miles out of
6 Moscow City towards Leon Junction. The Moscow City-
7 North Lewiston 115 kV line is normally operated in a
8 radial configuration open at Moscow City to avoid the
9 line being overloaded for area outages. If the line
10 section between North Lewiston and Leon Junction is
11 lost (normal source), then the breaker is closed at
12 Moscow City to pick up load at Leon Junction. Since
13 the 7 mile line section being rebuilt is normally not
14 carrying load, there are no offsets associated with
15 this project.
16

- 17 • **Burke-Thompson A&B 115 kV Transmission Rebuild (\$2.500**
18 **million):** The Burke-Thompson falls 115 kV lines are
19 jointly owned by Avista and Northwestern Energy.
20 Avista owns and operates the 4-mile line section from
21 Burke to the Montana border on both the A&B lines.
22 These lines are part of the Montana to Northwest
23 transmission path that moves generation from Montana
24 to load centers in both Eastern and Western Washington
25 and also serves mining load and residential customers
26 in the Silver Valley area of Idaho. The current lines
27 are in poor condition and are a significant safety
28 concern. In the winter, the snow levels get high
29 enough to reduce conductor clearance so the lines have
30 to be removed from service to ensure safety. This
31 project will rebuild both the A&B lines to improve
32 reliability and eliminate the need to open the lines
33 during the winter. The projects will reuse the
34 existing conductor so there will be no loss savings or
35 offsets associated with the rebuild.
36

- 37 • **Millwood Sub Rebuild (\$2.00 million):** In 2012 the
38 Company will begin to rebuild the existing 115 kV
39 Millwood substation. Millwood serves local area
40 Avista customers and Inland Empire Paper Company one
41 of Avista's largest industrial customers. The current
42 substation is old, approaching full capacity, and
43 contains a significant amount of PCBs that are an
44 environmental concern. Most of this project is
45 considered a distribution effort, but the 115 kV lines
46 that feed the substation need to be reconfigured to

1 support the substation rebuild effort. The costs
2 included here are associated with the 115 kV line
3 reconfigurations. The existing conductor will be
4 reused so there are no offsets associated with this
5 project.
6

- 7 • **Noxon-Hot Springs #2 230 kV reroute (\$0.500 million):**
8 The Noxon-Hot Springs project is being driven by
9 environmental issues that are impacting the
10 reliability of the lines. Several h-frame structures
11 are being undercut due to the meandering of Beaver
12 Creek. The Company had hoped to reroute the line by
13 moving all impacted structures away from the creek.
14 However, the property owners didn't support the new
15 line route, so instead existing structures are being
16 replaced with hybrid poles (concrete bottoms and steel
17 tops) to eliminate the creeks impact on the poles.
18 The new poles are being buried up to 25 feet to
19 accommodate scouring. The project will reuse existing
20 conductor so there are no offsets.
21
22

23 Reliability Replacements (\$7.913 million)
24

- 25 • **Transmission Minor Rebuilds (\$2.370 million):** These
26 projects include minor transmission rebuilds as a
27 result of age or damage caused by storms, wind, fire,
28 and the public. These projects are required to operate
29 the transmission system safely and reliably. The
30 facilities will need to be replaced when damaged in
31 order to maintain customer load service. In 2011 the
32 Company spent \$2.465 million on these minor rebuild
33 projects as a result of damage caused by weather or
34 the public through vandalism or accident. No offsets
35 are expected for these projects. **Power Circuit**
36 **Breakers (\$1.200 million):** The Company transfers all
37 circuit breakers to plant upon receiving them. The
38 breakers purchased in 2012 are planned for
39 installation at Moscow 230 and Lind 115 kV
40 substations.
41
- 42 • **Hatwai Breaker and switch replacement (\$0.614**
43 **million):** Avista currently owns the breaker terminal
44 at BPA's Hatwai substation associated with the Hatwai-
45 North Lewiston 230 kV line. The Breaker and switches

1 need to be replaced due to age. Avista has contracted
2 with BPA to replace the breaker and three air switches
3 in 2012 since BPA owns and operates the Hatwai
4 substation.
5

- 6 • **Asset Management Replacement Programs (\$3.479**
7 **million):** Avista has several different equipment
8 replacement programs to improve reliability by
9 replacing aged equipment that is beyond its useful
10 life. These programs include transmission air switch
11 upgrades, arrestor upgrades, restoration of substation
12 rock and fencing, recloser replacements, replacement
13 of obsolete circuit switchers, substation battery
14 replacement, interchange meter replacements, high
15 voltage fuse upgrades, and voltage regulator
16 replacements. All of these individual projects
17 improve system reliability and customer service. The
18 equipment is replaced when useful life has been
19 exceeded. The equipment under these replacement
20 programs are usually not maintained on a set schedule
21 so there aren't any associated offsets.
22
23

- 24 • **Other Small Transmission Projects (\$.250 million):**
25 These mainly consist of reinforcement, rebuild,
26 re-conductoring and re-insulating projects.
27
28

29 **Q. Please describe each of the distribution projects**
30 **planned for in 2012.**

31 A. The Company will spend approximately \$65.123
32 million in Distribution projects at a system level, with
33 \$16.364 million specific to Idaho in 2012. A summary of
34 the projects is shown in Table 4 and a brief description of
35 each project impacting Idaho are given below.

TABLE 4

Distribution			
2012 Capital - Distribution Projects			
	Pro Forma (System)	Pro Forma (Idaho)	O&M Offsets Idaho
Distribution Projects			
Wood Pole Management	\$13,025,000	\$3,576,000	\$5,600
PCB Related Distribution Rebuilds	\$3,812,000	\$2,057,000	
System Dist Reliability Improve Worst Feeders	\$1,950,000	\$722,000	
Power Transformers - Distribution	\$1,450,000	\$492,000	
Distribution - Pullman & Lewis Clark - ID	\$650,000	\$650,000	
Distribution - Cda East & North - ID	\$855,000	\$855,000	
10 & Stewart Dx Int - ID	\$250,000	\$250,000	
Total Distribution Projects	\$21,992,000	\$8,602,000	\$5,600
Distribution Replacement Projects			
Elect Distribution Minor Blanket	\$8,300,000	\$3,235,000	
Failed Electric Plant	\$2,200,000	\$1,014,000	
Distribution Line Relocation	\$1,900,000	\$692,000	
Electric Underground Replacement	\$1,792,000	\$441,000	\$25,000
Blue Creek 115 kV Rebuild - ID	\$1,905,000	\$1,905,000	
Other Small Projects	\$887,000	\$475,000	
Total Distribution Replacement Projects	\$16,984,000	\$7,762,000	\$25,000
Washington Distribution Projects (not included in case)			
System Efficiency Feeder Rebuilds	\$7,371,000	\$0	
Distribution Spokane North and West	\$1,910,000	\$0	
Millwood Sub Rebuild	\$1,000,000	\$0	
Pullman (Turner) Substation Rebuild	\$609,000	\$0	
Metro Feeder Upgrade	\$502,000	\$0	
Wood Substation Rebuild - Orin	\$300,000	\$0	
Spokane Electric Network Increase Capacity	\$1,650,000	\$0	
Spokane Smart Circuit	\$5,400,000	\$0	
Pullman Smart Grid Demonstration Project	\$6,300,000	\$0	
Smart Grid Workforce Program	\$1,105,000	\$0	
Total Washington Distribution Projects	\$26,147,000	\$0	\$0
Total Distribution Projects	\$65,123,000	\$16,364,000	\$30,600

1
2

3

4

System distribution projects (including transformation) for 2012 total \$21.992 million (\$8.602

1 million Idaho Share). These projects are necessary to meet
2 capacity needs of the system, improve reliability, and
3 rebuild aging distribution substations and feeders. The
4 following projects make up the \$8.602 million.

5 • **Wood Pole Management (\$13.025 million system / \$3.576**
6 **million Idaho):** The distribution wood pole management
7 program evaluates wood pole strength of a certain
8 percentage of the wood pole population each year such
9 that the entire system is inspected every 20 years.
10 Avista has over 240,000 distribution wood poles and
11 33,000 transmission wood poles in its electric system.
12 Depending on the test results for a given pole, the
13 pole is either considered satisfactory, needing to be
14 reinforced with a steel stub, or needing to be
15 replaced. As feeders are inspected as part of the
16 wood pole management program, issues are identified
17 unrelated to the condition of the pole. This project
18 also funds the work required to resolve those issues
19 (i.e. potentially leaking transformers, transformers
20 containing more than or equal to 1 ppm polychlorinated
21 biphenyls (PCBs), failed arrestors, missing grounds,
22 damaged cutouts, and dated high resistance conductor).
23 Transformers older than 1981 have the potential to
24 have oil that contains polychlorinated biphenyls
25 (PCBs). These older transformers present increased
26 risk because of the potential to leak oil that
27 contains PCBs. Poles installed prior to World War II
28 have reached the end of their useful life. Avista's
29 Wood Pole Management program was put into place to
30 prevent the Pole-Rotten events and Crossarm - Rotten
31 events from increasing. The company expects to
32 achieve \$5,600 in savings resulting from reduced call
33 outs to fix problems during 2012. The Company spent
34 \$15.961 million (system) on these efforts in 2011.

35
36
37 • **PCB Related Distribution Rebuilds (\$3.812 million**
38 **system / \$2.057 million Idaho):** In 2011, Avista
39 initiated a systematic replacement of distribution
40 line transformers because their oil contains PCBs. In
41 addition, replacement of the "pre-1981" transformers
42 has benefits of improving the energy efficiency and

1 long-term reliability of the distribution system.
2 2012 represents year-two of a six year effort to
3 replace these distribution transformers. In 2012, the
4 program is expected to replace approximately 750 line
5 transformers in Idaho. The replacement work is
6 scheduled to be completed throughout the entire year.
7 Offsets associated with this project in have not been
8 included in this case².
9

- 10 • **System Distribution Reliability Improve Worst Feeders**
11 **(\$1.950 million system / \$0.722 million Idaho):** Based
12 on a combination of reliability statistics, including
13 CAIDI, SAIFI, and CEMI (Customers Experiencing
14 Multiple Interruptions), feeders have been selected
15 for reliability improvement work. This work is
16 expected to improve the reliability of these electric
17 primary feeders. This is an annually recurring program
18 initiated in 2008 to address underperforming feeders
19 on the electric distribution system. This work will
20 improve the reliability of these feeders and overall
21 service to customers in these areas. The projects
22 were selected based on poor reliability performance
23 not on cost savings. The treatment of feeder
24 projects varies from conversion of overhead to
25 underground facilities, installing additional mid-line
26 protective devices, to hardening of existing
27 facilities.
28
29

30 **Power Transformer Distribution (\$1.450 million system /**
31 **\$0.492 million Idaho):** Transformers are transferred to
32 plant upon receiving them. These transformers are being
33 purchased to replace existing spares that will be
34 installed in 2012 as either replacements or new
35 installations. The purchased transformers will either
36 remain as system spares or placed into service as part of
37 the proposed 2013 projects. Offsets associated with this
38 project have not been included in this case².
39

- 40 • **Distribution - Pullman & Lewis Clark (\$.650 million**
41 **Idaho): System analysis** of the distribution grid
42 indicate a number of capacity constraints and
43 locations where "switch ties" are needed to allow for

² Offsets for this project have been calculated and the Company will update these at a later date.

1 alternate service to customers in the case of planned
2 or forced outages. In many cases, main trunk feeder
3 conductor is replaced with higher capacity wire which
4 reduces overall system losses, supports uniform
5 voltage, and provides for capacity when reconfiguring
6 the system during planned or forced outages.
7

8 • **Distribution - CDA East & North (\$.855 million Idaho):**

9 System analysis of the distribution grid indicate a
10 number of capacity constraints and locations where
11 "switch ties" are needed to allow for alternate
12 service to customers in the case of planned or forced
13 outages. In many cases, main trunk feeder conductor
14 is replaced with higher capacity wire which reduces
15 overall system losses, supports uniform voltage, and
16 provides for capacity when reconfiguring the system
17 during planned or forced outages.
18

- 19 • **10th & Stewart Dx Int (\$.250 million Idaho):** This
20 project involves increasing 115/13 kV transformation
21 capacity at an existing substation in Lewiston, Idaho.
22 This substation serves the Lewiston "Orchards" region
23 including the newly developed commercial zone near 20th
24 Avenue. Load demand requires additional distribution
25 capacity.
26

27 The Company also will spend approximately \$16.984
28 million (system) or \$7.762 million (Idaho share) in
29 Distribution equipment replacements and minor rebuilds
30 associated with aging distribution equipment, underground
31 cable with poor reliability performance, replacements from
32 storm damage, or relocation of feeder sections resulting
33 from road moves. A brief description of the projects
34 included in these replacement efforts is given below.

- 35
36 • **Electric Distribution Minor Blanket Projects (\$8.300**
37 **million system / \$3.235 million Idaho):** This effort

1 includes the replacement of poles and cross-arms on
2 distribution lines in 2012 as required, due to storm
3 damage, wind, fires, or obsolescence. The Company
4 spent \$8.270 million in 2011 for these projects. No
5 offsets are expected for these projects.
6

7 • **Failed Electric Plant (\$2.200 million system / \$1.014**
8 **million Idaho):** Replacement of distribution
9 equipment throughout the year as required due to
10 equipment failure. The Company spent \$1.384 million in
11 2011. The Company must replace the equipment to
12 maintain customer load service. No offsets are
13 expected from these projects.
14

15 • **Distribution Line Relocation (\$1.900 million system /**
16 **\$0.692 million Idaho):** The relocation of
17 distribution lines as required due to road moves
18 requested by State, County or City governments. The
19 Company spent \$2.061 million (system) in 2011 on line
20 relocations associated with road moves. No offsets or
21 savings are expected for these projects.
22

23 • **Electric Underground Replacement (\$1.792 million**
24 **system / \$0.441 million Idaho):** This effort involves
25 replacing the first generation of Underground
26 Residential District (URD) cable. This project has
27 been ongoing for the past several years and will be
28 completed in 2012. This program focuses on replacing
29 a vintage and type of cable that has reached its end
30 of life and contributes significantly to URD cable
31 failures. The Company spent \$3.887 million (system)
32 in 2011. The company anticipates that it will see
33 approximately \$82,000 (system) or \$25,000 (in Idaho)
34 in incremental savings as a result of reduced cable
35 failures. This is being included as an offset for the
36 Electric Underground Replacement project.
37

38 • **Blue Creek 115kV Rebuild (\$1.905 million Idaho):** The
39 Blue Creek 115-13 kV Substation, just east of Coeur
40 d'Alene, needs to be rebuilt adjacent to the existing
41 substation to accommodate new equipment, including a
42 new control house, 115 kV bus and switches, and
43 upgraded SCADA indication and control. The primary
44 driver for this project is the need to replace the
45 substation transformer, which would require excessive

1 work in the existing station due to its design. An
2 additional feeder will also be added for distribution
3 system reliability and operational flexibility as well
4 as future load service capability.

- 5
- 6 • **Other Small Projects (\$ 0.887 million system / \$0.475**
7 **million Idaho):** These mainly consist of capacity
8 increases and minor replacements of equipment.
- 9

10 **Q. Please describe the Company's capital**
11 **transmission projects that will be completed in 2013?**

12 A. The major capital transmission costs (system) for
13 projects to be completed in 2013 are approximately \$34.975
14 million and are shown in Table 5 and described below.

TABLE 5

Transmission		
2013 Capital - Compliance, Contractual, and Replacement Projects		
	Pro Forma (System)	O&M Offsets (System)
Reliability Compliance		
Spokane/CDA Relay Upgrade	\$1,450,000	
SCADA Replacement	\$450,000	
System Replace/Install Capacitor Bank	\$1,050,000	
Moscow 230 kV Substation Rebuild	\$8,090,000	\$3,780
Bronx-Cabinet 115 kV Rebuild/Reconductor	\$2,500,000	\$1,980
Power Transformers - Transmission	\$2,065,000	
Irvin 115kV Switching Station	\$1,150,000	
Opportunity 115 kV Switching Station	\$1,550,000	
Opportunity 12F2	\$400,000	
Total Reliability Compliance	\$18,705,000	\$5,760
Contractual Requirements		
Lancaster 230 kV Interconnection	\$4,600,000	
Colstrip Transmission	\$463,000	
Tribal Permits	\$332,000	
Total Contractual Requirements	\$5,395,000	\$0
Reliability Improvements		
Moscow City-N Lewiston 115 kV Reconductor	\$2,450,000	
Burke-Thompson A&B 115 kV Reconductor	\$2,500,000	\$660
Total Reliability Improvements	\$4,950,000	\$660
Reliability Replacement		
Transmission Minor Rebuilds	\$2,200,000	
Power Circuit Breakers	\$1,200,000	
Hatwai 230 kV Breaker Replacement	\$215,000	
Asset Management Replacement	\$2,310,000	
Total Reliability Replacement	\$5,925,000	\$0
Total Transmission Projects	\$34,975,000	\$6,420

1

2

3

4

5

6

7

8

9

Reliability Compliance Projects (\$18.705 million):

- **Spokane/Coeur d'Alene area relay upgrade (\$1.450 million):** This project involves the replacement of older protective 115 kV system relays with new micro-processor relays to increase system reliability by reducing the amount of time it takes to sense a system

1 disturbance and isolate it from the system. This is a
2 five to seven year project and is required to maintain
3 compliance with mandatory reliability standards. This
4 project is required to meet Reliability Compliance
5 under NERC Standards: TOP-004-2 R1-R4, TPL-002-0a R1-
6 R3, TPL-003-0a R1-R3. Positive offsets in reduced
7 maintenance costs associated with this replacement
8 effort are negatively offset by increased NERC testing
9 requirements per standard PRC-005-1.

- 10
- 11 • **SCADA Replacement (\$0.450 million):** The System Control
12 and Data Acquisition (SCADA) system is used by the
13 system operators to monitor and control the Avista
14 transmission system. The SCADA system requires annual
15 enhancements to improve performance, replace computer
16 systems and networks, and integrate vendor provided
17 improvements. This portion of the project is required
18 to meet Reliability Compliance under NERC Standards:
19 TOP-001-1, TOP-002-2a R5-R10, R16, TOP-005-2 R2, TOP-
20 006-2 R1-R7. Several Remote Terminal Units (RTUs)
21 located at substations throughout Avista's service
22 territory will also be replaced due to age. The RTUs
23 are part of the transmission control system. There
24 are no offsets or savings associated with this upgrade
25 project because the Company already pays the
26 application vendor a set annual maintenance fee for
27 support.
28
 - 29 • **System Replace/Install Capacitor Bank (\$1.050**
30 **million):** This effort includes the replacement of the
31 115 kV capacitor bank at the Odessa 115 kV substations
32 to support local area voltages during system outages
33 and summer irrigation load conditions. This project is
34 required to meet reliability compliance with NERC
35 Standards: TOP-004-2 R1-R4, TPL-002-0a R1-R3, TPL-003-
36 0a R1-R3, and provide improved service to customers.
37 The Odessa project is scheduled to be completed by
38 June 2013. There are no loss savings or other offsets
39 associated with these projects. The project improves
40 voltage support but doesn't reduce loss savings.
41
 - 42 • **Moscow 230 kV Sub - Rebuild 230 kV Yard (\$8.090**
43 **million):** This project involves the rebuild of the
44 existing Moscow 230 kV substation. The substation
45 rebuild includes the replacement of the existing 125

1 MVA 230/115 kV autotransformer with a new 250 MVA
2 autotransformer to meet compliance with NERC standards
3 and ensure adequate load service. Currently the
4 existing 230/115 kV autotransformer overloads for an
5 outage of another autotransformer in the area during
6 peak load conditions. The 230 kV portion of the
7 substation will be constructed as a double breaker
8 double bus configuration to maximize reliability and
9 operational flexibility. The substation will be
10 constructed over a three-year period with energization
11 of the substation occurring in November of 2013. This
12 project is required to meet Reliability Compliance
13 under NERC Standards: TOP-004-2 R1-R4, TPL-002-0a R1-
14 R3, TPL-003-0a R1-R3. Loss savings calculations
15 indicate that the new transformer installation will
16 result in an offset of \$3,780 in the pro forma period
17 (based on a \$31.50/MWh avoided energy cost and an
18 energization date of November, 2013).
19

- 20 • **Bronx - Cabinet 115 kV rebuild/reconductor (\$2.500**
21 **million):** In 2010 Avista's System Operations
22 identified a thermal constraint on the 32-mile Bronx-
23 Cabinet 115kV Transmission Line. This constraint was
24 confirmed by the System Planning Group, and documented
25 in the Transmission Line Design (TLD) Design Scoping
26 Document (DSD) created on January 4, 2011, and
27 modified on January 7, 2011. The
28 reconductoring/rebuilding of this line with 795 kcmil
29 ACSS conductor will provide a present-day 143 MVA line
30 rating to match the Cabinet Switchyard Transformer,
31 and a future 200 MVA line rating to match the parallel
32 path Bonneville Power Authority (BPA) system. The 32
33 miles of line will be reconducted over a four year
34 period, which began in 2011. Phase 3 of the project
35 (addressed here) consists of reconductoring an 8-mile
36 section of the line. The line upgrade will ensure
37 compliance with requirements associated with NERC
38 Standards: TOP-004-2 R1-R4, TPL-002-0a R1-R3, TPL-003-
39 0a R1-R3. Using 2010 actual loads, since the line was
40 operated open in over half of 2011 for construction of
41 the first phase of the project, the new conductor will
42 reduce line losses by 755 MWh on an annual basis.
43 This project will not be completed until December 2013
44 so the offset savings of \$1,980 will be observed in
45 2013 (based on a \$31.50/MWh avoided energy cost).
46

- 1 • **Power Transformers - Transmission (\$2.065 million):**
2 The Company will be rebuilding several 230 kV
3 substations over the next 5 years. One of these
4 stations is Westside in western Spokane and involves
5 the replacement of two 230/115 kV autotransformers.
6 The autotransformer purchased in 2013 may be part of
7 the Westside project or included as a system spare.
8 The transformer will be capitalized upon delivery per
9 the Company's accounting practices. The Westside
10 project is required to meet Reliability Compliance
11 under NERC Planning and Operations Standards: TOP-004-
12 2 R1-R4, TPL-002-0a R1-R3, TPL-003-0a R1-R3. Offsets
13 for this project will not occur until the
14 autotransformer is actually placed into service.
15
- 16 • **Irvin 115 kV Switching Station (\$1.150 million):** A
17 new 115 kV Switching Station will be constructed in
18 the Spokane Valley to reinforce the transmission
19 system. The Irvin 115kV Switching Station is the
20 initial project in a series of projects intended to
21 improve reliability of the 115kV transmission system
22 and accompanying load service in the Spokane Valley.
23 In 2013, \$1,150,000 is scheduled to be spent for the
24 construction of a new transmission line from the
25 future Irvin station site to the existing Millwood
26 Substation. Work will also be performed to relocate
27 existing structures in and around the Irvin site to
28 accommodate its integration. Since this is a new
29 transmission line, no offsets will be observed.
30
- 31 • **Opportunity 115 kV Switching Station (\$1.550 million):**
32 This project involves adding three 115 kV breakers to
33 the existing Opportunity substation. The project is
34 part of a group of projects to support the reliability
35 of the 115kV transmission system and accompanying load
36 service in the Spokane Valley. The completion of the
37 Opportunity switching station will allow for the
38 connection of a 115 kV line from the new Irvin
39 Substation as well as future construction of the
40 Greenacres substation in 2014. This upgrade will
41 ensure compliance with requirements associated with
42 NERC Standards: TOP-004-2 R1-R4, TPL-002-0a R1-R3,
43 TPL-003-0a R1-R3.
44

1 • **Opportunity 12F2 (\$0.400 million):** In order to support
2 the reliability of the Spokane Valley, a 115 kV
3 transmission line needs to be added from the new
4 Opportunity switching station to the new Irvin 115 kV
5 switching substation. This project involves the
6 under-build of a feeder on a 115 kV transmission line.
7 The 115 kV line currently operates at Distribution
8 voltage but will be reenergized at 115 kV with the
9 completion of the feeder under-build. This will
10 require the addition of a 115 kV line to the existing
11 Opportunity 12F2 feeder poles. The transmission line
12 upgrade will ensure compliance with requirements
13 associated with NERC Standards: TOP-004-2 R1-R4, TPL-
14 002-0a R1-R3, TPL-003-0a R1-R3.

15

16 Contractual Requirements (\$5.395 million):

17

18 • **Lancaster 230 kV Interconnection (\$4.600 million):**
19 Avista plans to interconnect to BPA's existing 230 kV
20 Lancaster substation by looping in its Boulder-
21 Rathdrum 230 kV line. The interconnection improves
22 the load service and system reliability in the Coeur
23 d'Alene and Rathdrum Prairie areas of Avista's service
24 territory. The interconnection also reduces the
25 loading on the heavily loaded Beacon-Bell transmission
26 lines that serve the Spokane area. The interconnection
27 will provide direct transmission access to output of
28 the Lancaster natural gas combined cycle plant. BPA
29 will perform the upgrade work, including the addition
30 of 2 new breakers, required at Lancaster substation
31 for a cost of \$4.1 million and Avista will perform the
32 necessary transmission line work to loop in its
33 Boulder Rathdrum line for a cost of \$0.500 million.

34

35 • **Colstrip Transmission (\$0.463 million):** As a joint
36 owner of the Colstrip Transmission projects, Avista
37 pays its ownership share of all capital improvements.
38 Northwestern Energy either performs or contracts out
39 the capital work associated with the jointly owned
40 facilities.

41

42 • **Tribal Permits (\$0.332 million):** The Company has
43 approximately 300 right-of-way permits on tribal
44 reservations that need to be renewed. The \$322,000
45 listed above relates to permit costs in 2013. The

1 costs include labor, appraisals, field work, legal
2 review, GIS information, negotiations, survey (as
3 needed), and the actual fee for the permit.
4

5 Reliability Improvements (\$4.950 million):
6

- 7 • **Moscow City-North Lewiston 115 kV Transmission Rebuild**
8 **(\$2.450 million):** This project includes the
9 reconductor/rebuild of the 22-mile line between Moscow
10 City substation and North Lewiston due to the poor
11 condition of the existing line. The project will be
12 completed in three phases. The first phase will be
13 completed in 2012 and the second phase in 2013. The
14 2013 effort includes reconductoring/rebuilding seven
15 miles of line, completing the line section between
16 Moscow city and Leon Junction. Phase 3 in 2015 will
17 complete the 8-mile line section between Leon Junction
18 and North Lewiston. The Moscow City-North Lewiston
19 115 kV line is normally operated in a radial
20 configuration open at Moscow City to avoid the line
21 being overloaded for area outages. If the line
22 section between North Lewiston and Leon Junction is
23 lost then the breaker is closed at Moscow City to pick
24 up load at Leon Junction. Since the line section
25 being rebuilt is normally not carrying load, there are
26 no offsets associated with this project.
27
- 28 • **Burke-Thompson A&B 115 kV Transmission Rebuild (\$2.500**
29 **million):** This project is the second phase of the
30 Burke-Thompson A&B line rebuild effort that will begin
31 in 2012. The 5-6 miles stretch on Burke-Pine Creek #4
32 115kV Line between Wallace and Burke Substation will
33 be rebuilt. These lines are part of the Montana to
34 Northwest transmission path that moves generation from
35 Montana to load centers in both Eastern and Western
36 Washington and also serves mining load and residential
37 customers in the Silver Valley area of Idaho. The
38 current lines are in poor condition. The projects
39 will result in loss savings due to the replacement of
40 the existing conductor with a larger conductor. The
41 new conductor has less resistance resulting in savings
42 of 251 MWh for an entire year. The project is
43 scheduled to be energized in December 2013. Assuming
44 an avoided cost of \$31.50/MWh total 2013 Idaho savings
45 is \$660.
46

1 Reliability Replacements (\$5.925 million)

- 2
- 3 • **Transmission Minor Rebuilds (\$2.200 million):** These
- 4 projects include minor transmission rebuilds as a
- 5 result of age or damage caused by storms, wind, fire,
- 6 and the public. These smaller projects are required to
- 7 operate the transmission system safely and reliably.
- 8 The facilities will need to be replaced when damaged
- 9 in order to maintain customer load service. In 2011
- 10 the Company spent \$2.465 million on these minor
- 11 rebuild projects as a result of damage caused by
- 12 weather or the public.
- 13
- 14 • **Power Circuit Breakers (\$1.200 million):** The Company
- 15 transfers all circuit breakers to plant upon receiving
- 16 them. The breakers purchased in 2013 are planned for
- 17 installation at Irvin and Odessa substations.
- 18
- 19 • **Hatwai Breaker and switch replacement (\$0.215**
- 20 **million):** Avista currently owns the relays at BPA's
- 21 Hatwai substation associated with the breaker terminal
- 22 of Hatwai-North Lewiston 230 kV line. The relay and
- 23 protection system needs to be upgraded along with the
- 24 breaker and switches that are planned to be replaced
- 25 in 2012. Avista has contracted with BPA to replace
- 26 the relays and protection system since BPA owns and
- 27 operates the Hatwai substation.
- 28
- 29 • **Asset Management Replacement Programs (\$2.310**
- 30 **million):** Avista has several different equipment
- 31 replacement programs to improve reliability by
- 32 replacing aged equipment that is beyond its useful
- 33 life. These programs include transmission air switch
- 34 upgrades, arrestor upgrades, restoration of substation
- 35 rock and fencing, recloser replacements, replacement
- 36 of obsolete circuit switchers, substation battery
- 37 replacement, interchange meter replacements, high
- 38 voltage fuse upgrades, and voltage regulator
- 39 replacements. All of these individual projects
- 40 improve system reliability and customer service. The
- 41 equipment is replaced when useful life has been
- 42 exceeded. The equipment under these replacement
- 43 programs are usually not maintained on a set schedule
- 44 so there aren't any associated offsets.
- 45

1 Q. Please describe each of the distribution projects
 2 planned for in 2013.

3 A. The Company will spend approximately \$52.634
 4 million in Distribution projects at a system level, with
 5 \$21.155 million specific to Idaho in 2013. A summary of
 6 the projects is shown in Table 6 and a brief description of
 7 each project impacting Idaho are given below.

TABLE 6			
Distribution			
2013 Capital - Distribution Projects			
	Pro Forma (System)	Pro Forma (Idaho)	O&M Offsets Idaho
Distribution Projects			
Wood Pole Management	\$12,016,000	\$3,883,000	\$5,600
System Efficiency Feeder Rebuilds	\$8,001,000	\$3,163,000	\$4,980
PCB Related Distribution Rebuilds	\$2,925,000	\$899,000	\$0
Power Transformers - Distribution	\$2,100,000	\$1,750,000	
ID	\$500,000	\$500,000	
Clark	\$500,000	\$500,000	
System Wood Substation Rebuild	\$3,705,000	\$3,705,000	
N. Moscow Increase Capacity - ID	\$1,680,000	\$1,680,000	
Total Distribution Projects	\$31,427,000	\$16,080,000	\$10,580
Distribution Replacement Projects			
Elect Distribution Minor Blanket	\$8,300,000	\$3,235,000	
Failed Electric Plant	\$2,250,000	\$1,037,000	
Distribution Line Relocation	\$2,200,000	\$803,000	
Projects	\$12,750,000	\$5,075,000	\$0
Washington Distribution Projects (not included in case)			
Feeder Automation Upgrades	\$2,501,000	\$0	
Distribution Spokane North and West	\$500,000	\$0	
Millwood Sub Rebuild	\$3,000,000	\$0	
Metro Feeder Upgrade	\$498,000	\$0	
Capacity	\$1,763,000	\$0	
Project	\$195,000	\$0	
Smart Grid Workforce Program	\$0	\$0	
Projects	\$8,457,000	\$0	\$0
Total Distribution Projects	\$52,634,000	\$21,155,000	\$10,580

8

1 Distribution projects related to Idaho (including
2 transformers) for 2013 total \$21.155 million. These
3 projects are necessary to meet capacity needs of the
4 system, improve reliability, and rebuild aging distribution
5 substations and feeders. The following projects make up
6 the \$21.155 million.

- 7 • **Wood Pole Management (\$12.016 million system / \$3.883**
8 **million Idaho):** The distribution wood pole management
9 program evaluates wood pole strength of a certain
10 percentage of the wood pole population each year such
11 that the entire system is inspected every 20 years.
12 Avista has over 240,000 distribution wood poles and
13 33,000 transmission wood poles in its electric system.
14 Depending on the test results for a given pole, the
15 pole is either considered satisfactory, needing to be
16 reinforced with a steel stub, or needing to be
17 replaced. As feeders are inspected as part of the
18 wood pole management program, issues are identified
19 unrelated to the condition of the pole. This project
20 also funds the work required to resolve those issues
21 (i.e. potentially leaking transformers, transformers
22 older than 1981, failed arrestors, missing grounds,
23 damaged cutouts, and dated high resistance conductor).
24 Transformers older than 1981 have the potential to
25 have oil that contains polychlorinated biphenyls
26 (PCBs). These older transformers present increased
27 risk because of the potential to leak oil that
28 contains PCBs. Poles installed prior to World War II
29 have reached the end of their useful life. Avista's
30 Wood Pole Management program was put into place to
31 prevent the Pole-Rotten events and Crossarm - Rotten
32 events from increasing. The Company expects to
33 achieve \$5,600 in savings resulting from reduced call
34 outs to fix problems during 2013. The Company spent a
35 total \$15.961 million (system) on these efforts in
36 2011.
37
- 38 • **System Efficiency Feeder Rebuild (\$8.001 million**
39 **system / \$3.163 Idaho):** Beginning in 2012, Avista
40 began a program to rebuild distribution feeders to

1 reduce energy losses, improve operation of the feeders
2 and increase long-term reliability. The program will
3 replace poles, transformers, conductor and other
4 equipment on a rural feeder and two urban feeders in
5 2012. The work associated with this effort will be
6 completed between June and December of 2013. The
7 energy savings from reduced losses calculated using an
8 average of three months of savings is 400 MWh. This
9 equates to an offset of \$12,600 system and \$4,410 in
10 Idaho using an avoided cost of \$31.50/MWh.
11

12 • **PCB Related Distribution Rebuilds (\$2.925 million**
13 **system / \$0.899 million Idaho):** In 2011, Avista
14 initiated a systematic replacement of distribution
15 line transformers because their oil contains PCBs. In
16 addition, replacement of the "pre-1981" transformers
17 has benefits of improving the energy efficiency and
18 long-term reliability of the distribution system.
19 2013 represents year-three of a six year effort to
20 replace these distribution transformers. In 2013, the
21 program is expected to replace approximately 610 line
22 transformers in Idaho. The replacement work is
23 scheduled to be completed throughout the entire year.
24 There are no energy savings from reduced losses in
25 included in this case³.
26
27

28 • **Power Transformer Distribution (\$2.100 million system**
29 **/ \$1.750 million Idaho):** Transformers are transferred
30 to plant upon receiving them. These transformers are
31 being purchased to replace existing spares that will
32 be installed in 2013 as either replacements or new
33 installations. The purchased transformers will either
34 remain as system spares or placed into service as part
35 of proposed 2014 projects. There are no offsets
36 associated with these transformers until they are
37 placed into service.
38

39 • **Distribution-CDA East & North (\$ 0.500 million Idaho):**
40 System analysis of the distribution grid indicate a
41 number of capacity constraints and locations where
42 "switch ties" are needed to allow for alternate
43 service to customers in the case of planned or forced

³ Offsets for this project have been calculated and the Company will update these at a later date.

1 outages. In many cases, main trunk feeder conductor
2 is replaced with higher capacity wire which reduces
3 overall system losses, supports uniform voltage, and
4 provides for capacity when reconfiguring the system
5 during planned or forced outages.
6

- 7 • **Distribution - Pullman & Lewis Clark (\$0.500 million**
8 **Idaho):** System analysis of the distribution grid
9 indicate a number of capacity constraints and
10 locations where "switch ties" are needed to allow for
11 alternate service to customers in the case of planned
12 or forced outages. In many cases, main trunk feeder
13 conductor is replaced with higher capacity wire which
14 reduces overall system losses, supports uniform
15 voltage, and provides for capacity when reconfiguring
16 the system during planned or forced outages.
17

- 18 • **System Wood Substation Rebuild (\$ 3.705 million**
19 **Idaho):** The Big Creek 115-13 kV Substation near
20 Kellogg, ID, will be rebuilt with steel structures and
21 new equipment. The station was originally constructed
22 in 1956 and needs to be rebuilt to today's design and
23 construction standards. In addition, the new station
24 will have only one transformer rather than the two
25 transformers it has today.
26

27 The North Lewiston 115-13 kV Substation will be
28 constructed to today's design and construction
29 standards inside the existing North Lewiston 230-115
30 kV Substation. The new station will be constructed
31 while the existing 115-13 kV wood sub remains in
32 service. The distribution feeders will be transferred
33 to the new sub and the old sub will then be retired
34 and salvaged. The primary driver for this project is
35 the need to replace the substation transformer and the
36 age of the wood substation, which was constructed in
37 1958.
38

- 39 • **N. Moscow Increase Capacity (\$1.680 million Idaho):** The
40 North Moscow 115 kV Substation will have a second
41 transformer and new feeder added to the existing
42 substation to meet increasing demand in the Moscow
43 area, including the University of Idaho. This will
44 require extension of the 115 kV bus, a new control
45 house, a new 13 kV distribution structure, a 13 kV bus

1 tie, and upgraded SCADA indication and control. The
2 upgraded station will have greater operational
3 reliability and flexibility and will have
4 accommodations for future 13 kV distribution feeders.
5

6
7 The Company also will spend approximately \$12.750
8 million (system) or \$5.075 million (Idaho share) in
9 Distribution equipment replacements and minor rebuilds
10 associated with aging distribution equipment, underground
11 cable with poor reliability performance, replacements from
12 storm damage, or relocation of feeder sections resulting
13 from road moves. A brief description of the projects
14 included in these replacement efforts is given below.

- 15
- 16 • **Electric Distribution Minor Blanket Projects (\$8.300**
17 **million system / \$3.235 million Idaho):** This effort
18 includes the replacement of poles and cross-arms on
19 distribution lines in 2013 as required, due to storm
20 damage, wind, fires, or obsolescence. The Company
21 spent \$8.270 million in 2011 for these projects. No
22 offsets are expected.
23
 - 24 • **Failed Electric Plant (\$2.250 million system / \$1.037**
25 **million Idaho):** Replacement of distribution equipment
26 throughout the year as required due to equipment
27 failure. The Company spent \$1.384 million in 2011. No
28 offsets or savings are expected for these projects.
29 The Company must replace the equipment to maintain
30 customer load service.
31
 - 32 • **Distribution Line Relocation (\$2.200 million system /**
33 **\$ 0.803 million Idaho):** The relocation of distribution
34 lines as required due to road moves requested by
35 State, County or City governments. The Company spent
36 \$2.061 million (system) in 2011 on line relocations

1 associated with road moves. No offsets or savings are
2 expected these projects.
3

4 **V. Vegetation Management Program**

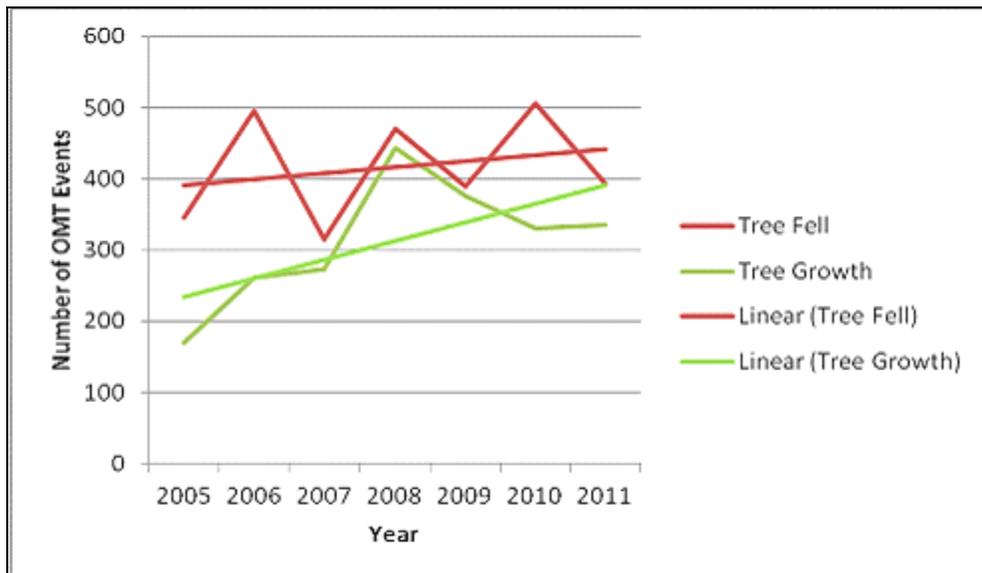
5
6 **Q. Please provide an update on the Company's**
7 **vegetation management program?**

8 A. "Avista's Vegetation Management Program" is still
9 striving towards an average frequency of 4 years. Work
10 performed as part of Avista's Performance Excellence
11 Initiative suggested changes to the Company's contracting
12 practices to increase efficiencies, allowing more work to
13 be performed on an annual basis. For 2012, a new contract
14 with provisions to transition from "time and material
15 pricing" at the beginning of the year to a unit price
16 structure by the end of the year was established. Avista
17 will be measuring the results to quantify potential value
18 and opportunities that would allow us to approach a four-
19 year cycle within our current annual spending level for
20 distribution feeders of \$4.1 million. Accordingly, the
21 Company has not made an adjustment for Vegetation
22 Management.

23 While the number of "Tree Fell" events in our Outage
24 Management Tool (OMT) shows a small trend upwards
25 (Illustration 1), the number of "Tree Growth" events has

1 declined over the past 4 years, except for a slight
2 increase in 2011. The real improvement from Vegetation
3 Management shows up in the number of outages (Illustration
4 2). The number of outages or partial outages due to "Tree
5 Fell" and "Tree Growth" events has generally decreased.

6 **Illustration 1 - Number of OMT Events**



7

8 **Illustration 2 - Number of Outages**



9

1 Q. Does this complete your pre-filed direct
2 testimony?

3 A. Yes it does.